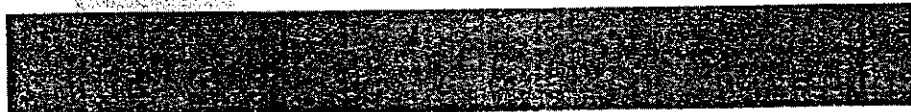
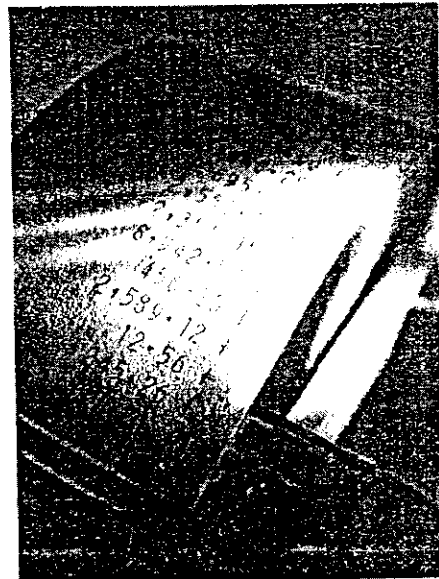


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**Appendix I1**  
**GASB 34 Final Infrastructure Valuation Report**  
**June 2003**

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# City of Chula Vista Infrastructure Valuation GASB 34



# CITY OF CHULA VISTA

## GASB 34 FINAL INFRASTRUCTURE VALUATION REPORT FOR FISCAL YEAR 2001/2002

JUNE 2003



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## TABLE OF CONTENTS

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I.	EXECUTIVE SUMMARY .....	1
II.	INTRODUCTION.....	3
III.	OVERALL ASSUMPTIONS .....	4
IV.	PAVEMENT, SIDEWALKS AND CURB & GUTTER .....	6
V.	STREETLIGHTS .....	7
VI.	STORM DRAINS .....	8
VII.	SEWER PIPES.....	9
VIII.	TRAFFIC SIGNALS AND SIGNS .....	10
IX.	PARKS AND OPEN SPACE.....	11
X.	MISCELLANEOUS INFRASTRUCTURE .....	12
XI.	BUILDINGS.....	13

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## I. EXECUTIVE SUMMARY

The purpose of this Infrastructure Valuation Report is to assist the City of Chula Vista (the "City") with the new Governmental Accounting Standards Board Statement No. 34 ("GASB 34") regarding infrastructure assets. The statement requires all state and local governmental agencies to value and depreciate each of the major infrastructure assets that the agency owns. Alternatively, agencies can choose the "modified approach" to infrastructure reporting. The modified approach requires annual condition assessments to demonstrate that the infrastructure assets have been maintained at or above the acceptable condition level established by the agency and includes estimated amounts to maintain this condition as well as actual expenses incurred during the past five years. For the City of Chula Vista, we have valued and depreciated each of their infrastructure assets and also provided the City with pavement condition ratings for each of their street segments.

MuniFinancial/Willdan was retained by the City of Chula Vista to identify, value, and calculate the depreciation for each of their major infrastructure assets. Additionally, we oversaw an appraisal of three City owned buildings to determine their current depreciated value. The appraisal, conducted by Lipman, Stevens & Thene, Inc, included the Legislative Office Building, the Community Development Office Building and the Montgomery Fire Station #5.

The City chose to include all assets acquired dating back to 1911 even though GASB 34 requires agencies to retroactively report assets that were acquired after June 30, 1980. Our review determined the following major infrastructure assets:

1. Pavement, Sidewalks and Curb and Gutter costs associated with each of the City owned streets.
2. Streetlights
3. Storm Drainage Systems located throughout the City.
4. Sewer Pipe Systems located throughout the City
5. Traffic Signals and Signs
6. Park and Open Space Landscape Improvements located throughout the City.
7. Bridges located throughout the City.

8. Parking Lots

9. Municipal Office Buildings and Fire Station located throughout the City.

The total current value, historical costs, depreciation and book value for each of the above infrastructure assets is as follows:

#### SUMMARY OF THE CITY OF CHULA VISTA INFRASTRUCTURE ASSETS

INFRASTRUCTURE ASSETS	YEAR 2002 CONSTRUCTION COST	COST AT YEAR BUILT	ACCUMULATED DEPRECIATION	6/30/2002 BOOK VALUE
Pavement	\$153,158,778	\$125,300,158	\$36,359,623	\$116,799,156
Sidewalks/Curb & Gutter	\$51,270,500	\$14,147,636	\$7,992,566	\$6,155,070
Streetlights	\$23,829,500	\$16,875,117	\$3,632,261	\$13,242,856
Storm Drains	\$171,161,337	\$79,155,119	\$26,892,311	\$52,262,808
Sewer Pipes	\$289,303,677	\$85,366,452	\$46,822,588	\$38,543,865
Traffic Signals and Signs	\$40,488,205	\$20,288,302	\$11,373,610	\$8,914,692
Parks	\$147,517,972	\$45,857,556	\$16,881,088	\$28,976,468
Open Space	\$18,633,800	\$16,720,179	\$3,344,036	\$13,376,143
Bridges	\$14,645,997	\$1,494,430	\$532,510	\$961,920
Parking Lots	\$518,490	\$372,861	\$115,925	\$256,936
Buildings	\$1,254,693	n/a	\$619,388	\$640,000
Total Infrastructure	\$911,782,949	\$405,577,809	\$154,565,906	\$280,129,912

Design and inspection costs were not included in the valuation of improvements since they were not deemed material and they do not have a life expectancy beyond the completion of the improvements (i.e. usually less than two years.)

The remainder of the report discusses the method and assumptions that we used to value and depreciate the infrastructure, and provides schedules to support these findings.

## II. INTRODUCTION

This report presents the findings of MuniFinancial/Willdan that resulted from our work to identify and value the major infrastructure assets in the City of Chula Vista. The scope of our services entailed the following:

1. Identify the major infrastructure assets that the City owns.
2. Determine the year that the assets were constructed or the remaining years of service and the typical useful life for each set of assets.
3. Determine the historical cost of constructing the assets. This is done either by determining today's costs to construct the assets and then discounting these costs back to the year they were actually constructed or by determining the actual cost that the City incurred at the time that the improvements were built.
4. Provide schedules that detail the infrastructure assets, the year that they were constructed, the current construction cost, the discounted book value, and the accumulated depreciation relating to these assets. For pavement we also included the pavement condition index rating for each street section.
5. Oversee the appraisal of three City owned buildings to determine their current depreciated value.
6. Prepare a report that discusses our findings and methodology in determining the value of the City's infrastructure assets.

Our conclusions were drawn from a review of documents and schedules provided by the City of Chula Vista, an appraisal report by Lipman, Stevens, and Thene, Inc. (July 2002), and conversations with City staff as well as from visual inspections. We also utilized the Marshall and Swift Valuation Service Guide, and Construction Cost Index History (1908-2002) from the Engineering News Record Magazine.

Section III of this report discusses overall assumptions that were made and agreed to prior to completing the report. The balance of the report includes detailed cost estimates for each of the infrastructure assets evaluated and specific assumptions used in determining the value.

## VII. SEWER PIPES

Sewer pipe information was obtained from reports and GIS maps provided by the City.

A useful life of 40 years was assumed for the sewer pipes. Many of the water pipes were installed (annexed into the City) before the 1960's and were therefore fully depreciated in determining the 2002 book value.



Table V. City of Chula Vista, Sewer Cost Estimate

Year	Pipe ID	Total Length	Cost/LF	Year 2002 Cost	Cost at Year Built	Useful Life	Accumulated Depreciation	6/30/02 Book Value	Annual Depreciation
1911	4	537	\$82.42	\$44,246	\$63.4	40	\$63.4	\$0	\$0
1911	4	724	\$82.42	\$59,674	\$85.5	40	\$85.5	\$0	\$0
1911	6	25,227	\$102.09	\$2,575,548	\$36,897	40	\$36,897	\$0	\$0
1911	8	323,642	\$143.54	\$46,454,665	\$665,512	40	\$665,512	\$0	\$0
1911	10	20,300	\$152.57	\$3,097,151	\$44,370	40	\$44,370	\$0	\$0
1911	12	23,996	\$161.60	\$3,877,696	\$55,552	40	\$55,552	\$0	\$0
1911	15	12,163	\$172.27	\$2,095,228	\$30,016	40	\$30,016	\$0	\$0
1911	18	11,463	\$179.49	\$2,057,433	\$29,475	40	\$29,475	\$0	\$0
1911	21	6,453	\$187.85	\$1,212,183	\$17,366	40	\$17,366	\$0	\$0
1911	24	1,078	\$198.52	\$213,935	\$3,065	40	\$3,065	\$0	\$0
1949	6	1,195	\$102.09	\$122,008	\$8,965	40	\$8,965	\$0	\$0
1949	8	11,778	\$143.54	\$1,690,638	\$124,226	40	\$124,226	\$0	\$0
1949	10	1,564	\$152.57	\$238,579	\$17,530	40	\$17,530	\$0	\$0
1953	8	6,875	\$143.54	\$986,770	\$91,203	40	\$91,203	\$0	\$0
1953	12	70	\$161.60	\$11,389	\$1,053	40	\$1,053	\$0	\$0
1953	18	276	\$161.60	\$44,539	\$4,117	40	\$4,117	\$0	\$0
1954	4	425	\$82.42	\$35,026	\$3,388	40	\$3,388	\$0	\$0
1954	6	5,715	\$102.09	\$583,436	\$56,441	40	\$56,441	\$0	\$0
1954	8	37,552	\$143.54	\$5,390,122	\$521,437	40	\$521,437	\$0	\$0
1955	6	875	\$102.09	\$89,354	\$9,085	40	\$9,085	\$0	\$0
1955	8	6,856	\$143.54	\$984,149	\$100,057	40	\$100,057	\$0	\$0
1956	8	12,505	\$143.54	\$1,794,926	\$191,336	40	\$191,336	\$0	\$0
1956	12	675	\$161.60	\$109,146	\$11,635	40	\$11,635	\$0	\$0
1956	18	1,227	\$179.49	\$220,294	\$23,483	40	\$23,483	\$0	\$0
1956	21	453	\$187.85	\$85,106	\$9,072	40	\$9,072	\$0	\$0
1957	8	28,926	\$143.54	\$4,151,970	\$463,059	40	\$463,059	\$0	\$0
1958	8	320	\$143.54	\$45,863	\$5,362	40	\$5,362	\$0	\$0
1958	4	367	\$82.42	\$30,226	\$3,534	40	\$3,534	\$0	\$0
1958	8	83,209	\$143.54	\$11,943,564	\$1,396,433	40	\$1,396,433	\$0	\$0
1958	15	2,219	\$172.27	\$382,335	\$44,702	40	\$44,702	\$0	\$0
1958	18	5,347	\$179.49	\$959,795	\$112,218	40	\$112,218	\$0	\$0
1959	4	712	\$82.42	\$58,693	\$7,206	40	\$7,206	\$0	\$0
1959	6	773	\$102.09	\$78,884	\$9,685	40	\$9,685	\$0	\$0
1959	8	85,669	\$143.54	\$12,296,659	\$1,509,694	40	\$1,509,694	\$0	\$0
1959	12	1,221	\$161.60	\$197,273	\$24,220	40	\$24,220	\$0	\$0
1959	15	2,854	\$172.27	\$491,688	\$60,366	40	\$60,366	\$0	\$0
1959	18	1,801	\$179.49	\$323,339	\$39,697	40	\$39,697	\$0	\$0
1960	4	767	\$82.42	\$63,214	\$8,024	40	\$8,024	\$0	\$0
1960	8	8,281	\$143.54	\$1,188,686	\$150,882	40	\$150,882	\$0	\$0
1960	10	851	\$152.57	\$129,857	\$16,483	40	\$16,483	\$0	\$0
1960	12	1,605	\$161.60	\$259,358	\$32,921	40	\$32,921	\$0	\$0
1961	8	55	\$143.54	\$7,838	\$1,023	40	\$1,023	\$0	\$0
1961	4	796	\$82.42	\$65,607	\$8,560	40	\$8,560	\$0	\$0
1961	6	496	\$102.09	\$50,656	\$6,609	40	\$6,609	\$0	\$0
1961	8	78,046	\$143.54	\$11,202,450	\$1,461,638	40	\$1,461,638	\$0	\$0
1961	10	1,863	\$152.57	\$284,155	\$37,075	40	\$37,075	\$0	\$0
1961	12	981	\$161.60	\$158,524	\$20,683	40	\$20,683	\$0	\$0
1961	15	3,874	\$172.27	\$667,280	\$87,063	40	\$87,063	\$0	\$0
1962	4	425	\$82.42	\$35,026	\$4,705	40	\$4,705	\$0	\$0
1962	6	83	\$102.09	\$8,476	\$1,139	40	\$1,139	\$0	\$0
1962	8	28,515	\$143.54	\$4,092,919	\$549,785	40	\$549,785	\$0	\$0
1962	10	311	\$152.57	\$47,392	\$6,366	40	\$6,366	\$0	\$0
1963	4	1,168	\$82.42	\$96,259	\$13,360	40	\$13,360	\$334	\$334
1963	8	78,406	\$143.54	\$11,254,094	\$1,561,992	40	\$1,522,943	\$39,050	\$39,050
1963	10	567	\$152.57	\$86,514	\$12,008	40	\$11,707	\$300	\$300
1963	12	1,153	\$161.60	\$186,358	\$25,865	40	\$25,219	\$647	\$647
1963	18	2,002	\$179.49	\$359,348	\$49,875	40	\$48,628	\$1,247	\$1,247
1963	21	4,535	\$187.85	\$851,992	\$118,251	40	\$115,295	\$2,956	\$2,956
1964	8	912	\$143.54	\$130,887	\$18,872	40	\$17,928	\$944	\$472
1964	8	5,106	\$143.54	\$732,961	\$105,682	40	\$100,398	\$6,284	\$2,642
1964	12	869	\$161.60	\$140,450	\$20,251	40	\$19,238	\$1,013	\$506
1965	4	425	\$82.42	\$35,026	\$5,239	40	\$4,846	\$393	\$131
1965	8	2,481	\$143.54	\$356,129	\$53,268	40	\$49,273	\$3,995	\$1,332
1966	8	262	\$143.54	\$37,610	\$5,904	40	\$5,313	\$590	\$148
1966	4	1,152	\$82.42	\$94,962	\$14,906	40	\$13,416	\$1,491	\$373
1966	8	29,972	\$143.54	\$4,302,037	\$675,292	40	\$607,763	\$67,529	\$16,882
1966	15	927	\$172.27	\$159,650	\$25,060	40	\$22,554	\$2,506	\$627
1967	6	1,062	\$102.09	\$108,447	\$17,942	40	\$15,699	\$2,243	\$449

Year	Pipe D	Total Length	Cost/LF	Year 2002 Cost	Cost at Year Built	Useful Life	Accumulated Depreciation	6/30/02 Book Value	Annual Depreciation
1967	8	9,949	\$143.54	\$1,428,033	\$236,258	40	\$206,726	\$29,532	\$5,906
1967	21	654	\$167.85	\$122,935	\$20,339	40	\$17,796	\$2,542	\$508
1968	4	25	\$82.42	\$2,084	\$371	40	\$315	\$56	\$9
1968	8	2,450	\$143.54	\$351,600	\$62,557	40	\$53,173	\$9,384	\$1,564
1968	10	675	\$152.57	\$102,917	\$18,311	40	\$15,564	\$2,747	\$458
1969	8	12,309	\$143.54	\$1,766,782	\$345,373	40	\$284,933	\$60,440	\$8,634
1969	12	1,593	\$161.60	\$257,444	\$50,326	40	\$41,519	\$8,807	\$1,258
1970	8	29	\$143.54	\$4,094	\$871	40	\$697	\$174	\$22
1970	6	724	\$102.09	\$73,927	\$15,727	40	\$12,581	\$3,145	\$393
1970	8	23,129	\$143.54	\$3,319,870	\$706,250	40	\$565,000	\$141,250	\$17,656
1970	10	1,425	\$152.57	\$217,396	\$46,248	40	\$36,998	\$9,250	\$1,156
1970	12	251	\$161.60	\$40,509	\$8,618	40	\$6,894	\$1,724	\$215
1970	15	957	\$172.27	\$164,930	\$35,086	40	\$28,069	\$7,017	\$877
1971	8	3,448	\$143.54	\$494,849	\$120,517	40	\$93,401	\$27,116	\$3,013
1971	4	1,302	\$82.42	\$107,342	\$26,142	40	\$20,260	\$5,882	\$654
1971	6	964	\$102.09	\$98,457	\$23,979	40	\$18,583	\$5,395	\$599
1971	8	154,984	\$143.54	\$22,245,933	\$5,417,839	40	\$4,198,625	\$1,219,014	\$135,446
1971	10	9,016	\$152.57	\$1,375,477	\$334,988	40	\$259,615	\$75,372	\$8,375
1971	12	3,126	\$161.60	\$505,101	\$123,014	40	\$95,336	\$27,678	\$3,075
1971	15	18,311	\$172.27	\$3,154,294	\$768,206	40	\$595,360	\$172,846	\$19,205
1971	21	1,530	\$187.85	\$287,387	\$69,991	40	\$54,243	\$15,748	\$1,750
1972	8	26,948	\$143.54	\$3,868,024	\$1,044,515	40	\$783,386	\$761,129	\$26,113
1972	12	768	\$161.60	\$124,178	\$33,533	40	\$25,150	\$8,383	\$838
1973	8	6,654	\$143.54	\$955,044	\$278,789	40	\$202,122	\$76,657	\$6,970
1973	6	1,271	\$102.09	\$129,773	\$37,882	40	\$27,465	\$10,418	\$947
1973	8	19,266	\$143.54	\$2,765,370	\$807,246	40	\$585,254	\$221,993	\$20,181
1973	12	3,214	\$161.60	\$519,419	\$151,625	40	\$109,928	\$41,697	\$3,791
1973	15	3,076	\$172.27	\$529,881	\$154,679	40	\$112,142	\$42,537	\$3,867
1974	8	10,005	\$143.54	\$1,436,158	\$446,886	40	\$312,821	\$134,066	\$11,172
1974	10	349	\$152.57	\$53,173	\$16,546	40	\$11,582	\$4,964	\$414
1975	8	340	\$143.54	\$48,820	\$16,635	40	\$11,229	\$5,406	\$416
1976	8	1,652	\$143.54	\$237,139	\$87,708	40	\$57,010	\$30,698	\$2,193
1977	8	13,738	\$143.54	\$1,971,980	\$782,514	40	\$489,071	\$293,443	\$19,563
1978	8	2,611	\$143.54	\$374,707	\$160,234	40	\$96,140	\$64,094	\$4,006
1978	18	281	\$179.49	\$50,518	\$21,603	40	\$12,962	\$8,641	\$540
1981	8	4,572	\$143.54	\$656,228	\$357,345	40	\$187,606	\$169,739	\$8,934
1981	8	110,971	\$143.54	\$15,928,414	\$8,673,722	40	\$4,553,704	\$4,120,018	\$216,843
1981	10	5,962	\$152.57	\$909,601	\$495,318	40	\$260,042	\$235,276	\$12,383
1981	12	11,854	\$161.60	\$1,915,543	\$1,043,097	40	\$547,626	\$495,471	\$26,077
1981	15	1,478	\$172.27	\$254,676	\$138,682	40	\$72,808	\$65,974	\$3,467
1982	4	796	\$82.42	\$65,639	\$38,676	40	\$19,338	\$19,338	\$967
1982	8	42,550	\$143.54	\$6,107,464	\$3,598,619	40	\$1,799,310	\$1,799,310	\$89,965
1982	12	8,500	\$161.60	\$1,373,600	\$809,348	40	\$404,674	\$404,674	\$20,234
1983	8	1,539	\$143.54	\$220,891	\$138,353	40	\$65,718	\$72,635	\$3,459
1983	6	111	\$102.09	\$11,374	\$7,124	40	\$3,384	\$3,740	\$178
1983	8	110,424	\$143.54	\$15,849,945	\$9,927,473	40	\$4,715,550	\$5,211,923	\$248,187
1983	10	8,955	\$152.57	\$1,366,165	\$855,685	40	\$406,450	\$449,235	\$21,392
1983	12	7,453	\$161.60	\$1,204,385	\$754,356	40	\$358,319	\$396,037	\$18,859
1983	14	1,412	\$170.63	\$240,871	\$150,867	40	\$71,662	\$79,205	\$3,772
1983	15	7,174	\$172.27	\$1,235,841	\$774,058	40	\$367,678	\$406,380	\$19,351
1984	8	1,601	\$143.54	\$229,802	\$146,766	40	\$66,045	\$80,722	\$3,669
1985	8	2,596	\$143.54	\$372,652	\$240,812	40	\$102,345	\$138,467	\$6,020
1985	4	2,341	\$82.42	\$192,923	\$124,669	40	\$52,984	\$71,685	\$3,117
1985	6	4,085	\$102.09	\$417,067	\$269,514	40	\$114,543	\$154,970	\$6,738
1985	8	154,772	\$143.54	\$22,215,551	\$14,355,973	40	\$6,101,288	\$8,254,684	\$358,899
1985	10	13,038	\$152.57	\$1,989,118	\$1,285,394	40	\$546,292	\$739,101	\$32,135
1985	12	23,670	\$161.60	\$3,825,048	\$2,471,795	40	\$1,050,513	\$1,421,282	\$61,795
1985	15	14,769	\$172.27	\$2,544,263	\$1,644,135	40	\$698,758	\$945,378	\$41,103
1985	18	9,520	\$179.49	\$1,708,704	\$1,104,186	40	\$469,279	\$634,907	\$27,605
1985	21	2,465	\$187.85	\$463,113	\$299,270	40	\$127,190	\$172,080	\$7,482
1986	8	4,328	\$143.54	\$621,213	\$411,005	40	\$164,402	\$246,603	\$10,275
1986	12	297	\$161.60	\$48,058	\$31,796	40	\$12,718	\$19,078	\$795
1987	6	1,366	\$102.09	\$139,430	\$94,634	40	\$35,488	\$59,146	\$2,386
1987	8	11,442	\$143.54	\$1,642,304	\$1,114,658	40	\$417,997	\$696,661	\$27,866
1987	10	1,643	\$152.57	\$250,626	\$170,104	40	\$63,789	\$106,315	\$4,253
1987	15	674	\$172.27	\$116,174	\$78,849	40	\$29,568	\$49,281	\$1,971
1989	8	3,313	\$143.54	\$475,584	\$338,096	40	\$109,882	\$228,215	\$8,452
1989	6	1,311	\$102.09	\$133,850	\$95,156	40	\$30,926	\$64,230	\$2,379
1989	8	41,555	\$143.54	\$5,964,646	\$4,240,333	40	\$1,378,108	\$2,862,224	\$106,008
1989	12	253	\$161.60	\$40,841	\$23,034	40	\$9,436	\$19,598	\$726
1989	14	1,719	\$170.63	\$293,240	\$208,467	40	\$67,752	\$140,715	\$5,212

Year	Pipe ID	Total Length	Cost/LF	Year 2002 Cost	Cost at Year Built	Useful Life	Accumulated Depreciation	6/30/02 Book Value	Annual Depreciation
1989	15	2,827	\$172.27	\$486,912	\$346,151	40	\$112,499	\$233,652	\$8,654
1990	4	677	\$82.42	\$55,805	\$40,679	40	\$12,204	\$28,475	\$1,017
1990	6	3,193	\$102.09	\$325,993	\$237,627	40	\$71,288	\$166,339	\$5,941
1990	8	9,624	\$143.54	\$1,381,347	\$1,006,911	40	\$302,073	\$704,838	\$25,173
1990	10	4,070	\$152.57	\$620,953	\$452,634	40	\$135,790	\$316,844	\$11,316
1990	15	618	\$172.27	\$106,527	\$77,651	40	\$23,295	\$54,356	\$1,941
1992	10	601	\$152.57	\$91,744	\$70,451	40	\$17,613	\$52,838	\$1,761
1992	12	369	\$161.60	\$59,701	\$45,845	40	\$11,461	\$34,383	\$1,146
1994	8	14,207	\$143.54	\$2,039,180	\$1,698,775	40	\$339,755	\$1,359,020	\$42,469
1994	15	3,041	\$172.27	\$523,812	\$436,371	40	\$87,274	\$349,097	\$10,909
1996	8	734	\$143.54	\$105,325	\$91,182	40	\$13,677	\$77,505	\$2,280
2000	8	331	\$143.54	\$47,446	\$45,468	40	\$2,273	\$43,195	\$1,137
2000	10	1,636	\$152.57	\$249,588	\$239,181	40	\$11,959	\$227,222	\$5,980
2000	12	2,294	\$161.60	\$370,624	\$355,171	40	\$17,759	\$337,412	\$8,879
2000	15	2,326	\$172.27	\$400,613	\$383,909	40	\$19,195	\$364,714	\$9,598
Total		1,989,070		\$289,303,677	\$85,366,452		\$46,822,588	\$38,543,865	\$1,931,014

#### Assumptions

The sewer mains listed are those owned by the city

"Year" refers to the year that the sewer mains were annexed

Sources: City of Chula Vista; MuniFinancial